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NEWS	3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	5	JAN 28	MARPAT searching enhanced
NEWS	6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	8	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
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NEWS	13	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS	14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS	15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS	16	MAR 31	CA/CAplus and CASREACT patent number format for U.S. applications updated
NEWS	17	MAR 31	LPCI now available as a replacement to LDPCI
NEWS	18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	19	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS	20	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS	21	APR 28	EMBASE Controlled Term thesaurus enhanced
NEWS	22	APR 28	IMSRESEARCH reloaded with enhancements
NEWS	23	MAY 30	INPAFAMDB now available on STN for patent family searching
NEWS	24	MAY 30	DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
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FILE 'HOME' ENTERED AT 16:15:37 ON 04 JUN 2008

=> file biosis medline embase caplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'BIOSIS' ENTERED AT 16:16:08 ON 04 JUN 2008

FILE 'MEDLINE' ENTERED AT 16:16:08 ON 04 JUN 2008

FILE 'EMBASE' ENTERED AT 16:16:08 ON 04 JUN 2008

FILE 'CAPLUS' ENTERED AT 16:16:08 ON 04 JUN 2008

=> albumin (3a) purification
L1 528 ALBUMIN (3A) PURIFICATION

=> filtration or filtered or filter
L2 1148795 FILTRATION OR FILTERED OR FILTER

=> l1 and l2
L3 87 L1 AND L2

=> nanometer or nm or angstrom
L4 1246743 NANOMETER OR NM OR ANGSTROM

=> l3 and l4
L5 1 L3 AND L4

=> d ibib abs total

L5 ANSWER 1 OF 1 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:258679 BIOSIS
DOCUMENT NUMBER: PREV200600258874
TITLE: Purification, properties and extended solution structure of the complex formed between human immunoglobulin A1 and human serum albumin by scattering and ultracentrifugation.
AUTHOR(S): Almogren, Adel; Furtado, Patricia B.; Sun, Zhe; Perkins, Stephen J. [Reprint Author]; Kerr, Michael A.
CORPORATE SOURCE: Univ London Univ Coll, Royal Free and Univ Coll, Sch Med, Dept Biochem and Mol Biol, Gower St, London WC1E 6BT, UK
s.perkins@medsch.ucl.ac.uk
SOURCE: Journal of Molecular Biology, (FEB 17 2006) Vol. 356, No. 2, pp. 413-431.
CODEN: JMOBAK. ISSN: 0022-2836.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 3 May 2006
Last Updated on STN: 3 May 2006

AB Immunoglobulin A (IgA) is unique amongst antibodies in being able to form polymeric structures that may possess important functions in the pathology of specific diseases. IgA also forms complexes with other plasma proteins, the IgA1-human serum albumin (HSA) complex (IgA1-HSA) being typical. We have purified this complex using a novel two-step purification based on thiophilic chromatography and gel filtration , and characterised this. HSA is linked covalently to the tailpiece of IgA1 by a disulphide bond between Cys471 in IgA1 and Cys34 in HSA. IgA1-HSA binds to IgA receptors on neutrophils and monocytes, and elicits a respiratory burst that is comparable in magnitude to that of monomeric IgA1. The solution arrangement of IgA1-HSA was identified by X-ray scattering and ultracentrifugation. The radius of gyration RG Of 7.5(+/- 0.3) nm showed that IgA1-HSA is more extended in solution than IgA1 (R-G of 6.1-6.2 nm). Its distance distribution function P(r) showed two peaks that indicated a well-separated solution structure similar to that for IgA1, and a maximum dimension of 25 nm, which is greater than that of 21 nm for IgA1. Sedimentation equilibrium showed that the IgA1:HSA stoichiometry is 1:1. Sedimentation velocity resulted in a sedimentation coefficient of 6.4 S and a frictional ratio of 1.87, which is greater than that of 1.56 for IgA1. The constrained modelling of the IgA1-HSA structure using known structures for IgA1 and HSA generated 2432 conformationally randomised models of which 52 gave good scattering fits. The HSA structure was located at the base of the Fc fragment in IgA1 in an extended arrangement. Such a structure accounts for the functional activity of IgA1-HSA, and supports our previous modelling analysis of the IgA1 solution structure. The IgA1-HSA complex may suggest the potential for creating a new class of targeted therapeutic reagents based on the coupling of IgA1 to carrier proteins.

=> dup rem l4
1246743 ANSWERS REQUESTED EXCEEDS MAXIMUM ALLOWED OF 50000
You may process up to 50,000 answers per command. Please try to narrow your search until your resulting L# answer set is within the maximum number of answers.

=> dup rem l3
PROCESSING COMPLETED FOR L3
L6 59 DUP REM L3 (28 DUPLICATES REMOVED)

=> d ibib abs total l6

L6 ANSWER 1 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:115787 CAPLUS
DOCUMENT NUMBER: 146:158836
TITLE: Method for analyzing albumins in sample solution
INVENTOR(S): Kubota, Kazuyuki; Yamada, Naoyuki; Takehana, Kenji; Kawakami, Asami; Nakayama, Satoshi
PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan
SOURCE: PCT Int. Appl., 60pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007013679	A1	20070201	WO 2006-JP315358	20060727

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,

GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,
MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU,
SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,
US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM
EP 1912065 A1 20080416 EP 2006-782218 20060727
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,
BA, HR, MK, RS
KR 2008032246 A 20080414 KR 2008-704763 20080227
PRIORITY APPLN. INFO.: JP 2005-217993 A 20050727
WO 2006-JP315358 W 20060727

AB A method for analyzing albumins in a sample solution (e.g., blood, blood plasma) is provided, which is characterized by a sample solution pretreatment method performed before the sample solution is subjected to mass spectrometry or liquid chromatog. The method is intended to stably analyze the quantity or ratio of an oxidized albumin and a reduced albumin present in the sample solution with excellent accuracy. The sample solution pretreatment method comprises adjusting a sample solution to pH4-9 with a buffer solution, or
performing a ultrafiltration treatment or chromatog. purification (e.g., HPLC, reversed-phase chromatog., normal-phase chromatog., affinity chromatog., ion-exchange chromatog., gel filtration, hydrophobic chromatog.). Also provided is an albumin standard sample to be used in the accuracy control in an albumin quant. anal.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
DUPLICATE 1
ACCESSION NUMBER: 2006:505470 BIOSIS
DOCUMENT NUMBER: PREV200600515571
TITLE: Different behavior of erythrovirus B19 and torquetenovirus in response to a single step of albumin purification.
AUTHOR(S): Azzi, Alberta [Reprint Author]; Maggi, Fabrizio; Zakrzewska, Krystyna; Menconi, Maria Carla; Di Pietro, Niccolo; Salotti, Vittorio; Farina, Claudio; Andreoli, Elisabetta; Fiorentino, Bruno; Angelini, Cristina; Corcioli, Fabiana; Bendinelli, Mauro
CORPORATE SOURCE: Univ Florence, Dept Publ Hlth, Viale Morgagni 48, I-50134 Florence, Italy
alberta.azzi@unifi.it
SOURCE: Transfusion (Malden), (JUL 2006) Vol. 46, No. 7, pp. 1162-1167.
CODEN: TRANAT. ISSN: 0041-1132.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Oct 2006
Last Updated on STN: 4 Oct 2006

AB The safety of human serum albumin (HSA) is of special interest with respect to virus transmission because of the wide use of this blood product as a therapeutic agent and also, added to other products, as an excipient or a stabilizer. Conflicting data are reported concerning HSA contamination by small, naked viruses such as the erythrovirus B19 (B19V) and the anellovirus torquetenovirus (TTV). This study has been performed to assess the effect of the HSA purification procedures on the viral

contamination.Known concentrations of B19V and TTV virus were spiked in raw Fraction V, the starting material from fractionated human plasma for HSA purification, which was subsequently submitted to the depth filtration procedure. After spiking, B19V and TTV genome copies were determined by real-time quantitative polymerase chain reaction assays in the mixture at the end of Fraction V dissolution, to determine the virus concentration achieved, in the HSA solution after the filtration step, in the filtered postwashing fluid, and in the supernatant of resuspended Celite.B19V was completely adsorbed by the Celite used as a filter aid in the depth filtration process and was thus undetectable in the resulting HSA-containing fraction. In contrast, in 2 out of 3 experiments, TTV was detected in all samples.The different behavior of the two viruses might be a reflection of their different surface charge.

L6 ANSWER 3 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:258679 BIOSIS
DOCUMENT NUMBER: PREV200600258874
TITLE: Purification, properties and extended solution structure of the complex formed between human immunoglobulin A1 and human serum albumin by scattering and ultracentrifugation.
AUTHOR(S): Almogren, Adel; Furtado, Patricia B.; Sun, Zhe; Perkins, Stephen J. [Reprint Author]; Kerr, Michael A.
CORPORATE SOURCE: Univ London Univ Coll, Royal Free and Univ Coll, Sch Med, Dept Biochem and Mol Biol, Gower St, London WC1E 6BT, UK
s.perkins@medsch.ucl.ac.uk
SOURCE: Journal of Molecular Biology, (FEB 17 2006) Vol. 356, No. 2, pp. 413-431.
CODEN: JMOBAK. ISSN: 0022-2836.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 3 May 2006
Last Updated on STN: 3 May 2006

AB Immunoglobulin A (IgA) is unique amongst antibodies in being able to form polymeric structures that may possess important functions in the pathology of specific diseases. IgA also forms complexes with other plasma proteins, the IgA1-human serum albumin (HSA) complex (IgA1-HSA) being typical. We have purified this complex using a novel two-step purification based on thiophilic chromatography and gel filtration , and characterised this. HSA is linked covalently to the tailpiece of IgA1 by a disulphide bond between Cys471 in IgA1 and Cys34 in HSA. IgA1-HSA binds to IgA receptors on neutrophils and monocytes, and elicits a respiratory burst that is comparable in magnitude to that of monomeric IgA1. The solution arrangement of IgA1-HSA was identified by X-ray scattering and ultracentrifugation. The radius of gyration RG Of 7.5(+/-0.3) nm showed that IgA1-HSA is more extended in solution than IgA1 (R-G of 6.1-6.2 nm). Its distance distribution function P(r) showed two peaks that indicated a well-separated solution structure similar to that for IgA1, and a maximum dimension of 25 nm, which is greater than that of 21 nm for IgA1. Sedimentation equilibrium showed that the IgA1:HSA stoichiometry is 1:1. Sedimentation velocity resulted in a sedimentation coefficient of 6.4 S and a frictional ratio of 1.87, which is greater than that of 1.56 for IgA1. The constrained modelling of the IgA1-HSA structure using known structures for IgA1 and HSA generated 2432 conformationally randomised models of which 52 gave good scattering fits. The HSA structure was located at the base of the Fc fragment in IgA1 in an extended arrangement. Such a structure accounts for the functional activity of IgA1-HSA, and supports our previous modelling analysis of the IgA1 solution structure. The IgA1-HSA complex may suggest the potential for creating a new class of targeted therapeutic reagents based on the coupling of IgA1 to carrier proteins. (c) 2005 Elsevier Ltd. All rights reserved.

L6 ANSWER 4 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:959745 CAPLUS
DOCUMENT NUMBER: 143:253984
TITLE: Purification of albumin by nanofiltration for therapeutic uses
INVENTOR(S): Boulange, Paul; Chtourou, Sami; Boyer, Stephane; Schmitthaeusler, Roland; Padrazzi, Bruno
PATENT ASSIGNEE(S): Laboratoire Francais du Fractionnement et des Biotechnologies, Fr.
SOURCE: Fr. Demande, 40 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2866890	A1	20050902	FR 2004-2001	20040227
FR 2866890	B1	20080404		
AU 2005223418	A1	20050929	AU 2005-223418	20050223
CA 2557174	A1	20050929	CA 2005-2557174	20050223
WO 2005090402	A1	20050929	WO 2005-FR416	20050223
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1718673	A1	20061108	EP 2005-731028	20050223
EP 1718673	B1	20070912		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
BR 2005007886	A	20070807	BR 2005-7886	20050223
AT 373014	T	20070915	AT 2005-731028	20050223
JP 2007535495	T	20071206	JP 2007-500249	20050223
ES 2294696	T3	20080401	ES 2005-731028	20050223
US 20070161122	A1	20070712	US 2006-589825	20061215

PRIORITY APPLN. INFO.: FR 2004-2001 A 20040227
WO 2005-FR416 W 20050223

AB The invention relates to a process of albumin purification comprising subjecting an albumin solution (15-80 g/L) and of pH not lower than 7, to nanofiltration at 15-55. The invention also relates to an albumin solution obtained by the above process, with a polymer yield not higher than 1%. This albumin composition is useful for therapeutic purposes.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
DUPLICATE 2
ACCESSION NUMBER: 2006:97823 BIOSIS
DOCUMENT NUMBER: PREV200600093183
TITLE: Beta(2)-microglobulin removal by extracorporeal renal replacement therapies.
AUTHOR(S): Krieter, Detlef H. [Reprint Author]; Lemke, Horst-Dieter; Canaud, Bernard; Wanner, Christoph

CORPORATE SOURCE: Univ Wurzburg, Div Nephrol, Dept Med, Josef Schneider Str 2, D-97080 Wurzburg, Germany
krieter_d@medizin.uni-wuerzburg.de
SOURCE: Biochimica et Biophysica Acta, (NOV 10 2005) Vol. 1753, No. 1, pp. 146-153.
ISSN: 1570-9639.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Feb 2006
Last Updated on STN: 1 Feb 2006

AB There is increasing evidence that end-stage renal disease patients with lower beta(2)-microglobulin plasma levels and patients on convective renal replacement therapy are at lower mortality risk. Therefore, an enhanced beta2-microglobulin removal by renal replacement procedures has to be regarded as a contribution to a more adequate dialysis therapy. In contrast to high-flux dialysis, low-flux hemodialysis is not qualified to eliminate substantial amounts of beta(2)-microglobulin. In hemodialysis using modem high-flux dialysis membranes, a beta(2)-microglobulin removal similar to that obtained in hemofiltration or hemodiafiltration can be achieved. Several of these high-flux membranes are protein-leaking, making them suitable only for hemodialysis due to a high albumin loss when used in more convective therapy procedures. On-line hemodiafiltration infusing large substitution fluid volumes represents the most efficient and innovative renal replacement therapy form. To maximize beta(2)-microglobulin removal, modifications of this procedure have been proposed. These modifications ensure safer operating conditions, such as mixed hemodiafiltration, or control albumin loss at maximum purification from beta(2)-microglobulin, such as mid-dilution hemodiafiltration, push/pull hemodiafiltration or programmed filtration. Whether these innovative hemodiafiltration options will become accepted in clinical routine use needs to be proven in future.

L6 ANSWER 6 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1008026 CAPLUS
DOCUMENT NUMBER: 142:294269
TITLE: Method for purification of human serum albumin by pressure filtration
INVENTOR(S): An, Kang; Ma, Xiaowei; Pan, Ruowen; Liu, Wenfang; Fan, Bei
PATENT ASSIGNEE(S): Hualan Bioengineering Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 4 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1470529	A	20040128	CN 2002-138822	20020722
PRIORITY APPLN. INFO.:			CN 2002-138822	20020722

AB The present invention provides a method for purification of human serum albumin. The method comprises adjusting human plasma with acetate buffer to pH (5.5 ± 0.2), precipitating with 95% ethanol at (-5 ± 1)°, press filtering under controlling the liquid-feeding pressure ≤2.8 kg cm-2 to obtain solid mixture of FI, FII, and FIII; adjusting supernatant I with acetate buffer to pH 5.9 ± 0.2, precipitating with 95% ethanol at (-5 ± 1)°, filtering to obtain precipitate FIV; adjusting supernatant II to pH 4.7 ± 0.2, precipitating at (-8 ± 2)°, press filtering to obtain precipitate FV; dissolving precipitate FV in water, precipitating with ethanol at (-2)-(-3)°

and pH (4.6 ± 0.2), ultrafiltering, adjusting filtrate with Na octanoate to pH 6.6-7.2, deactivating at 60° for 10 h, and sterilization filtering and then packaging.

L6 ANSWER 7 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
DUPLICATE 3
ACCESSION NUMBER: 2003:149809 BIOSIS
DOCUMENT NUMBER: PREV200300149809
TITLE: Treatment of phenytoin toxicity by the Molecular Adsorbents Recirculating System (MARS).
AUTHOR(S): Sen, Sambit; Ratnaraj, Neville; Davies, Nathan A.; Mookerjee, Rajeshwar P.; Cooper, Christopher E.; Patsalos, Philip N.; Williams, Roger; Jalan, Rajiv [Reprint Author]
CORPORATE SOURCE: Institute of Hepatology and University College London Hospitals and Medical School, 69-75 Chenies Mews, London, WC1E 6HX, UK
r.jalan@ucl.ac.uk
SOURCE: Epilepsia, (February 2003) Vol. 44, No. 2, pp. 265-267. print.
ISSN: 0013-9580 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 19 Mar 2003
Last Updated on STN: 19 Mar 2003
AB Purpose: Toxicity is common in patients of epilepsy treated with phenytoin (PHT), requiring careful drug level monitoring and supportive care. Specific treatment options are limited, although charcoal haemofiltration has been used previously. We attempted to demonstrate that severe PHT toxicity can be treated successfully with the Molecular Adsorbents Recirculating System (MARS). The mechanism of drug removal by the system also was studied. Methods: A 45-year-old patient of status epilepticus with acute renal failure and severe PHT toxicity, associated with cardiac arrhythmias, hepatotoxicity, and altered sensorium, was treated with the MARS, a blood-purification system based on albumin dialysis, and including a charcoal filter, for 11.5 h. Serum PHT levels and blood levels of oxygen-based free radicals (by electron paramagnetic resonance spectroscopy) were measured before and after treatment. Results: Serum total and free PHT levels declined sharply (32 to 11 muM and 9.8 to 2.0 muM, respectively), with clinical improvement and a 65% reduction in measured oxidative stress. The mechanism of drug removal, deduced by measuring PHT in the dialysate collected from different segments of the MARS circuit, was by clearance from blood into the albumin dialysate, and ultimately removal by the charcoal filter. Conclusions: The observed removal of PHT by MARS, along with the clinical improvement of the patient and reduction of the associated oxidative stress after treatment, indicates that MARS offers a promising option in PHT toxicity.

L6 ANSWER 8 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:964490 CAPLUS
DOCUMENT NUMBER: 138:12483
TITLE: Purification of human serum albumin
INVENTOR(S): Fulton, Scott
PATENT ASSIGNEE(S): GTC Biotherapeutics, Inc., USA
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002101021	A2	20021219	WO 2002-US18965	20020613
WO 2002101021	A3	20030306		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2448432	A1	20021219	CA 2002-2448432	20020613
AU 2002310433	A1	20021223	AU 2002-310433	20020613
US 20030036637	A1	20030220	US 2002-172159	20020613
NZ 529767	A	20031219	NZ 2002-529767	20020613
EP 1401857	A2	20040331	EP 2002-737510	20020613
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1525977	A	20040901	CN 2002-813703	20020613
BR 2002010386	A	20040914	BR 2002-10386	20020613
JP 2004536081	T	20041202	JP 2003-503772	20020613
PRIORITY APPLN. INFO.:			US 2001-297884P P	20010613
			WO 2002-US18965 W	20020613

AB The invention features methods of purifying human serum albumin (hSA) from endogenous serum albumin of the host cell producing the hSA. The methods include providing a sample comprising hSA and serum albumin of the host cell, applying the sample to an affinity column that binds hSA at a higher affinity than the serum albumin of the host cell, eluting bound hSA from the affinity column, and crystallizing the eluted has. The invention also features compns. comprising hSA produced by the methods of the invention.

L6 ANSWER 9 OF 59 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 2003158629 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12674652
TITLE: Progress in purification of human serum albumin.
AUTHOR: Lu Xiu-Ling; Su Zhi-Guo
CORPORATE SOURCE: National Laboratory of Biochemical Engineering, Institute of Process Engineering, Chinese Academy of Sciences, PO Box 353, Beijing 100080, China.
SOURCE: Sheng wu gong cheng xue bao = Chinese journal of biotechnology, (2002 Nov) Vol. 18, No. 6, pp. 761-6. Ref: 30
Journal code: 9426463. ISSN: 1000-3061.
PUB. COUNTRY: China
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
General Review; (REVIEW)
LANGUAGE: Chinese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200307
ENTRY DATE: Entered STN: 6 Apr 2003
Last Updated on STN: 11 Jul 2003
Entered Medline: 10 Jul 2003

AB Human serum albumin(HSA) has been used clinically to treat a number of diseases with high dosage. Extremely pure puoduct is required in large-scale production. Plasma-derived HSA(pHSA) has long been produced by precipitation methods. Among them cold ethanol precipitation is dominant. However, chromatographic purification of HSA has been increasingly studied in the last few years. Application of

chromatography, especially ionexchange, affinity, and size-exclusion, has opened a new area in the production of pHSA. A new challenge is the purification of recombinant HSA(rHSA). A successful approach involves STREAMLINE expanded bed adsorption to direct capture the target product from the fermentation broth. This novel process eliminates the need to separate the cells by centrifugation or membrane filtration. Ion exchange chromatography and hydrophobic chromatography play a central role in the purification scheme. Integration with other chromatographic techniques such as size-exclusion, metal chelate, and affinity gives improved purification results. Though innovative, the purification of rHSA still needs further improvement and optimization to increase product purity and process recovery.

L6 ANSWER 10 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:161476 CAPLUS
DOCUMENT NUMBER: 136:189304
TITLE: New type of affinity chromatographic medium for purification of albumin
INVENTOR(S): Li, Rongxiu; Wang, Jiwu; Xiao, Qishi; Chen, Dongxing
PATENT ASSIGNEE(S): Zhonglu Bioengineering Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 13 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1297152	A	20010530	CN 1999-124061	19991122
CN 1120365	B	20030903		
PRIORITY APPLN. INFO.:			CN 1999-124061	19991122

AB A medium contains a solid-phase supporter and 3-aminomethylpyridine supported on it, and the solid-phase supporter is selected from Sephadex, PDX, Sephacryl, Sepharose, Sepharose CL, Sepharose FF, Superdex, etc.. The purification process of albumin using the medium comprises adsorbing the albumin with pH 5.0-9.0, 0.005-0.03 M buffer (preferably pH 6.0, 0.20 mM Tris HCl buffer), and eluting with pH 2.0-5.0 or 9.5-11.0, 0.005-2.0 M NaOAc-HOAc buffer. The albumin can be further purified by anionic exchange, cationic exchange, gel filtration chromatog., or ultrafiltration. The albumin is from blood plasma, placenta blood, human albumin fermentation liquid, etc..

L6 ANSWER 11 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:518176 BIOSIS
DOCUMENT NUMBER: PREV200100518176
TITLE: The influence of hypoalbuminemia on maximal flow rates and transmembrane pressure during plasmapheresis: An in vitro study.
AUTHOR(S): Unger, J. K. [Reprint author]; Horn, N. A.; Kashefi, A.; Blumberg, A.; Klosterhalfen, B.; Rossaint, R.
CORPORATE SOURCE: Department of Anaesthesiology, Rheinisch-Westfaelische Technische Hochschule Aachen, Pauwelstrasse 30, D-52074, Aachen, Germany
Juliane.Unger@post.rwth-aachen.de
SOURCE: Blood Purification, (2001) Vol. 19, No. 4, pp. 408-416. print.
CODEN: BLPUDO. ISSN: 0253-5068.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Nov 2001

Last Updated on STN: 23 Feb 2002

AB Background: Plasmapheresis has been used for the treatment of acute liver failure (ALF). In these patients, hypoalbuminemia is often observed. Since albumin improves the disaggregability of erythrocytes, hypoalbuminemia might deteriorate rheology and thus influence the overall performance of plasmapheresis. Methods: Hypoalbuminemia was mimicked by using porcine blood because of its physiologically low albumin/globulin ratio (AGR). Filters (n=16) were integrated in a closed extracorporeal in vitro system. In the control group (n=8), native porcine blood (AGR 0.8) was used. In the study group (n=8), we used porcine blood supplemented with human albumin to obtain the human AGR value of 1.2. Two different heparinization protocols were compared in each group (2.5 IU/ml: n=4 with albumin and n=4 without albumin versus 5 IU/ml: n=4 with and n=4 without albumin). Results: In both heparinization protocols the higher AGR led to lower transmembrane pressure (TMP) levels compared to the lower AGR. The reduced TMPs enabled higher blood flow and filtration rates. Conclusion: Maintenance of a physiological AGR in ALF patients might improve the performance of plasmapheresis and - as opposed to raised heparinization - contribute to a safer application.

L6 ANSWER 12 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:397348 BIOSIS
DOCUMENT NUMBER: PREV200000397348
TITLE: High purity albumin.
AUTHOR(S): Berezenko, Stephen [Inventor, Reprint author]; Woodrow, John R. [Inventor]; Johnson, Richard A. [Inventor]; Wood, Patricia C. [Inventor]; Burton, Steven J. [Inventor]; Quirk, Alan V. [Inventor]; Coghlan, David St. J. [Inventor]; Wilson, Mark J. [Inventor]
CORPORATE SOURCE: Hucknall, UK
ASSIGNEE: Delta Biotechnology Limited, UK
PATENT INFORMATION: US 6034221 20000307
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Mar. 7, 2000) Vol. 1232, No. 1. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 20 Sep 2000
Last Updated on STN: 8 Jan 2002

AB A process is provided for the preparation of albumin which has extremely low levels of or is essentially free of colorants, metal ions, human proteins, fragments of albumin, polymers or aggregates of albumin, and viruses, and which is relatively non-glycated, relatively high in free thiol and with an intact C-terminus. The process comprises passing albumin (preferably expressed and secreted by transformed yeast) through two chromatography purifications, ultrafiltering the product, passing through two further chromatography steps and again ultrafiltering the product.

L6 ANSWER 13 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 5

ACCESSION NUMBER: 2000:227826 BIOSIS
DOCUMENT NUMBER: PREV200000227826
TITLE: Albumin purification from human placenta.
AUTHOR(S): Cabrera-Crespo, Joaquin [Reprint author]; Goncalves, Viviane Maimoni; Martins, Elizabeth A. L.; Grellet, Sheyla; Lopes, Alexandre Paulo Yague; Raw, Isaias
CORPORATE SOURCE: Centro de Biotecnologia, Instituto Butantan, Av. Vital Brasil 1500, CEP 05503-900, Sao Paulo, SP, Brazil
SOURCE: Biotechnology and Applied Biochemistry, (April, 2000) Vol.

31, No. 2, pp. 101-106. print.
CODEN: BABIEC. ISSN: 0885-4513.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Jun 2000
Last Updated on STN: 5 Jan 2002

AB Albumin is the human protein used mainly for therapeutic purposes. Besides the traditionally used plasma, blood from placenta is an alternative source for albumin purification. We describe here an industrial process for purification of albumin from human placenta. The proposed albumin-purification process, for 50 kg of placentas, comprises: (i) extraction of haemolysed blood with saline and solid/liquid separation by basket centrifugation; (ii) selective precipitation of haemoglobin by ethanol/chloroform and precipitate removal by filtration in a press filter; (iii) concentration/diafiltration of the filtrate in a 30 kDa cross-flow ultrafiltration (CFUF) membrane; (iv) thermo-coagulation at 70 degreeC with sodium octanoate/EDTA; (v) treatment with activated charcoal at pH 3; (vi) concentration/diafiltration of the filtrate in a 30 kDa CFUF membrane; (vii) anion-exchange chromatography Q-Sepharose; (viii) hydrophobic-interaction chromatography with phenyl-Sepharose; and (ix) conditioning and pasteurization. The process yields an average of 4.5 g of albumin/kg of placenta with a purity of 97.1% and A403 of 0.05 (1% protein). The final product passes pyrogen and toxicity tests in vivo and it does not contain polymers or aggregates, even after the accelerated stability test, as judged by gel filtration, as required by the Brazilian Pharmacopoeia.

L6 ANSWER 14 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:498424 BIOSIS
DOCUMENT NUMBER: PREV200000498545
TITLE: Adrenomedullin receptors in rat cerebral microvessels.
AUTHOR(S): Kobayashi, Hideyuki [Reprint author]; Minami, Shin-ichi; Yamamoto, Ryuichi; Masumoto, Keizo; Yanagita, Toshihiko; Uezono, Yasuhito; Tsuchiya, Kimiyuki; Mohri, Motohiko; Kitamura, Kazuo; Eto, Tanenao; Wada, Akihiko
CORPORATE SOURCE: Department of Pharmacology, Miyazaki Medical College, 5200 Kihara, Kiyotake, Miyazaki, 889-1692, Japan
SOURCE: Molecular Brain Research, (30 September, 2000) Vol. 81, No. 1-2, pp. 1-6. print.
CODEN: MBREE4. ISSN: 0169-328X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Nov 2000
Last Updated on STN: 10 Jan 2002

AB To characterize the sites of action of adrenomedullin (AM) in the cerebral microvasculature, we studied the effect of AM on cyclic AMP (cAMP) level as well as expression of AM and its receptor in the rat cerebral microvessels. The microvessels were prepared from rat cerebral cortex by albumin flotation and glass bead filtration technique. AM and calcitonin gene-related peptide (CGRP) increased cAMP level in the microvessels in a concentration-dependent manner. The effect of AM was more than 100 times more potent than that of CGRP. The accumulation of cAMP by AM was inhibited by AM(22-52), an AM receptor antagonist, but not by CGRP(8-37), a CGRP receptor antagonist, suggesting that AM increased cAMP accumulation by acting on receptors specific to AM. (125I)AM binding to the microvessels was displaced by AM and less potently by AM(22-52). The displacing potencies of CGRP and CGRP(8-37) were very weak. mRNAs for AM as well as calcitonin-receptor-like receptor and receptor-activity-modifying protein 2 which form a receptor specific to AM, were highly expressed in the microvessels. These results provide biochemical and

pharmacological evidence that AM is produced in and acts on the cerebral microvessels in an autocrine/paracrine manner and is involved in regulation of cerebral microcirculation.

L6 ANSWER 15 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:432494 BIOSIS
DOCUMENT NUMBER: PREV199900432494
TITLE: Influence of protein surface morphology on the ultrafiltration flux resistance of bovine serum albumin.
AUTHOR(S): Elysee-Collen, Belinda; Lencki, Robert W. [Reprint author]
CORPORATE SOURCE: Department of Food Science, University of Guelph, Guelph, Ontario, N1G 2W1, Canada
SOURCE: Biotechnology Progress, (July-Aug., 1999) Vol. 15, No. 4, pp. 732-739. print.
CODEN: BIPRET. ISSN: 8756-7938.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 18 Oct 1999
Last Updated on STN: 3 May 2000
AB The effect of added ethanol and (NH4)2SO4 on the flux decline index (FDI) of bovine serum albumin (BSA) and a fatty acid-poor derivative (BSA/FAP) was examined. Ternary phase diagrams of the two protein species indicated that the concentration polarization (CP) layer on the surface of a nonadsorbing 10 000 MWCO regenerated cellulose membrane had principally a packed bed structure up to 33 wt % ethanol and 21 wt % (NH4)2SO4. Intrinsic viscosity and turbidity analysis were conducted to determine the degree of intra- and interprotein interactions within this packed bed morphology. With BSA/FAP, the effects of these two interactions tended to counterbalance each other, so the FDI of this protein was not strongly influenced by solute addition. In contrast, the adsorption of fatty acids to BSA caused the protein to expand, producing a less rigid CP layer with a higher FDI. However, the addition of ethanol led to protein compression, reducing this effect. The presence of fatty acids also produced a more associated BSA in salt solution, which increased flux resistance. The results obtained for both proteins indicate that an FDI minimum is observed when a noninteraction hard sphere structure is present in the CP layer.

L6 ANSWER 16 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:50068 BIOSIS
DOCUMENT NUMBER: PREV200000050068
TITLE: Protein transmission during Dean vortex microfiltration of yeast suspensions.
AUTHOR(S): Kluge, Tanja; Rezende, Carla; Wood, David; Belfort, Georges [Reprint author]
CORPORATE SOURCE: Howard P. Isermann Department of Chemical Engineering, Rensselaer Polytechnic Institute, Troy, NY, USA
SOURCE: Biotechnology and Bioengineering, (Dec. 20, 1999) Vol. 65, No. 6, pp. 649-658. print.
CODEN: BIBIAU. ISSN: 0006-3592.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Feb 2000
Last Updated on STN: 3 Jan 2002
AB Substantially higher rates of protein and fluid volume transport for microfiltration of yeast suspensions were possible with improved hydrodynamics using centrifugal fluid instabilities called Dean vortices. Under constant permeate flux operation with suspended yeast cells, a helical module exhibited 19 times the filtration capacity of a linear module. For feed containing both BSA and beer yeast under constant

transmembrane pressure with diafiltration, about twice as much protein (BSA and other proteins from cell lysis) was transported out of the feed by the helical module as compared with the linear module. The volumetric permeation flux improvements for the helical over the linear module ranged from 18 to 43% for yeast concentrations up to 4.5 dry wt %.

L6 ANSWER 17 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:91610 BIOSIS
DOCUMENT NUMBER: PREV200000091610
TITLE: EBA columns with a distribution system based on local stirring.
AUTHOR(S): Zafirakos, Elias [Reprint author]; Lihme, Allan
CORPORATE SOURCE: UpFront Chromatography A/S, Lersoe Parkalle 42, DK-2100, Copenhagen OE, Denmark
SOURCE: Bioseparation, (1999) Vol. 8, No. 1-5, pp. 85-91. print. ISSN: 0923-179X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Mar 2000
Last Updated on STN: 3 Jan 2002
AB A new type of liquid distribution system for expanded bed columns has been developed. The construction differs from traditional distribution designs by not having any small pores (like filters or distribution plates) in the flow path of the crude feedstock. A stirrer at the bottom of the column distributes the incoming feedstock. Due to the stirring, jet streams are prevented and a stable expanded bed is formed above a mixed zone. This article describes the new column design, and investigates the performance of the stirred distribution concept experimentally by measuring theoretical plate number and breakthrough profile. Furthermore, the possibilities of scaling up the concept will be discussed based on theoretical plate measurements.

L6 ANSWER 18 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 6
ACCESSION NUMBER: 1999:118433 BIOSIS
DOCUMENT NUMBER: PREV199900118433
TITLE: Fractionated plasma separation and adsorption system: A novel system for blood purification to remove albumin bound substances.
AUTHOR(S): Falkenhagen, Dieter [Reprint author]; Strobl, Wolfram; Vogt, Gerd; Schrefl, Andreas; Linsberger, Ingrid; Gerner, Franz Joseph; Schoenhofen, Michael
CORPORATE SOURCE: Cent. Biomedical Technol., Danube Univ. Krems, Dr. Karl Dorrek Str. 30, A-3500 Krems, Austria
SOURCE: Artificial Organs, (Jan., 1999) Vol. 23, No. 1, pp. 81-86. print.
CODEN: ARORD7. ISSN: 0160-564X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Mar 1999
Last Updated on STN: 12 Mar 1999
AB The removal of albumin bound substances has gained increasing interest in different diseases, especially in acute and chronic liver disease. Therefore, a new system, the fractionated plasma separation and adsorption (FPSA) system, was developed based on combined membrane and adsorbent blood purification techniques. The most important contribution to the FPSA system was the development of a new polysulfone hollow-fiber filter, which is characterized by a sieving coefficient of 0.89 for human serum albumin (HSA) but only of 0.17 for fibrinogen, and 0 (zero) for IgM immunoglobulins. Using a closed filtrate circuit connected to the new polysulfone filter which integrates 1 or 2 adsorption

columns and also a high flux dialyzer adapted to a dialysis machine, the FPSA System opens excellent possibilities for the relatively specific removal of albumin bound substances from the blood such as albumin bound bilirubin or even tryptophan. In comparison to other systems (for example, the Molecular Adsorbent Recirculating System (MARS) and albumin dialysis systems), the FPSA system enables much higher elimination of strongly bound albumin substances. The first clinical investigations have recently started based on a modified dialysis machine designed with all necessary safety measures.

L6 ANSWER 19 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 7

ACCESSION NUMBER: 1999:135025 BIOSIS
DOCUMENT NUMBER: PREV199900135025
TITLE: Purification of catalase from human placenta.
AUTHOR(S): Goncalves, Viviane Maimoni [Reprint author]; Leite, Luciana Cezar De Cerqueira; Raw, Isaias; Cabrera-Crespo, Joaquin
CORPORATE SOURCE: Centro Biotecnologia, Inst. Butanatan, Av. Vital Brasil 1500, CEP 05503-900 Sao Paulo, SP, Brazil
SOURCE: Biotechnology and Applied Biochemistry, (Feb., 1999) Vol. 29, No. 1, pp. 73-77. print.
CODEN: BABIEC. ISSN: 0885-4513.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 31 Mar 1999
Last Updated on STN: 31 Mar 1999

AB The therapeutic use of an antioxidant complex containing superoxide dismutase and catalase has been proposed for the treatment of several diseases in which reactive oxygen species have an important role. Although superoxide dismutase for human use is commercially available, methods for the production of catalase for human use have not been described. An industrial process was developed for the purification of catalase for human use as a by-product of albumin production from human placenta, comprising two parts: (1) albumin and catalase co-purification steps, including blood extraction from ground placentas, precipitation of haemoglobin with ethanol/chloroform, concentration/diafiltration by tangential filtration and anionic chromatography, by which non-adsorbed catalase was separated from albumin; and (2) catalase purification steps after albumin separation, including a second anionic chromatography step and dye-affinity chromatography. This method provided a final recovery of 27% (70-100% in each step) with 670-fold purification of catalase(85% pure) and a specific activity of 49 000 units/mg, which is higher than that of commercially available human catalase. This process permits the co-purification of catalase and albumin and can easily be scaled up.

L6 ANSWER 20 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:408713 BIOSIS
DOCUMENT NUMBER: PREV199900408713
TITLE: Studies on Box-Behnken design experiments: Cellulose acetate-polyurethane ultrafiltration membranes for BSA separation.
AUTHOR(S): Sivakumar, M. [Reprint author]; Annadurai, G.; Mohan, D.
CORPORATE SOURCE: Department of Chemical Engineering, Alagappa College of Technology, Anna University, Chennai, 600 025, India
SOURCE: Bioprocess Engineering, (July, 1999) Vol. 21, No. 1, pp. 65-68. print.
CODEN: BIENEU. ISSN: 0178-515X.
DOCUMENT TYPE: Article
LANGUAGE: English

ENTRY DATE: Entered STN: 8 Oct 1999
Last Updated on STN: 8 Oct 1999

AB Ultrafiltration membranes were prepared from mixtures of cellulose acetate-polyurethane blend membranes. During the last 1 or 2 decades, the concentration purification and separation of Albumin by ultrafiltration through semipermeable membranes have been put into practice and hence membrane separation is considered as the unit operation. The blend solution was prepared from cellulose acetate and polyurethane in polar solvent in presence of polyvinylpyrrolidone as additive. The performance of modified blend membranes applied for Bovine Serum Albumin (BSA) separation by ultrafiltration technique using Box-Behnken design with three variables: additive, time and pressure. Three different levels was studied to identify a significant correlation between the effect of these variables on the amount of separation of BSA. The methodology identifies the principal experimental variables, which have the greatest effect on the separation process. The experimental values are in good agreement with predicted values, the correlation coefficient was found to be 0.9871.

L6 ANSWER 21 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 8

ACCESSION NUMBER: 1999:48207 BIOSIS
DOCUMENT NUMBER: PREV199900048207
TITLE: Purification of human albumin by the combination of the method of Cohn with liquid chromatography.
AUTHOR(S): Tanaka, K. [Reprint author]; Shigueoka, E. M.; Sawatani, E.; Dias, G. A.; Arashiro, F.; Campos, T. C. X. B.; Nakao, H. C.
CORPORATE SOURCE: Div. Producao Desenvolimento Industrial Fundacio Pro-Sangue Hemocentro Sao Paulo, Av. Dr. Eneas C. Aguiar 155, 1 andar 05403-000 Sao Paulo, SP, Brazil
SOURCE: Brazilian Journal of Medical and Biological Research, (Nov., 1998) Vol. 31, No. 11, pp. 1383-1388. print. CODEN: BJMRDK. ISSN: 0100-879X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Feb 1999
Last Updated on STN: 10 Feb 1999

AB Large volumes of plasma can be fractionated by the method of Cohn at low cost. However, liquid chromatography is superior in terms of the quality of the product obtained. In order to combine the advantages of each method, we developed an integrated method for the production of human albumin and immunoglobulin G (IgG). The cryoprecipitate was first removed from plasma for the production of factor VIII and the supernatant of the cryoprecipitate was fractionated by the method of Cohn. The first precipitate, containing fractions (F)-I + II + III, was used for the production of IgG by the chromatographic method (see Tanaka K et al. (1998) Brazilian Journal of Medical and Biological Research, 31: 1375-1381) The supernatant of F-I + II + III was submitted to a second precipitation and F-IV was obtained and discarded. Albumin was obtained from the supernatant of the precipitate F-IV by liquid chromatography, ion-exchange on DEAE-Sepharose FF, filtration through Sephacryl S-200 HR and introduction of heat treatment for fatty acid precipitation. Vital inactivation was performed by pasteurization at 60degreeC for 10 h. The albumin product obtained by the proposed procedure was more than 99% pure for the 15 lots of albumin produced, with a mean yield of 25.0 +- 0.5 g/l plasma, containing 99.0 to 99.3% monomer, 0.7 to t.0% dimers, and no polymers. Prekallikrein activator levels were ltoreq5 IU/ml. This product satisfies the requirements of the 1997 Pharmacopee Europeenne.

L6 ANSWER 22 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on

STN
ACCESSION NUMBER: 1998:400834 BIOSIS
DOCUMENT NUMBER: PREV199800400834
TITLE: Modeling and analysis of the affinity filtration process, including broth feeding, washing, and elution steps.
AUTHOR(S): He, L.-Z.; Dong, X.-Y.; Sun, Yan [Reprint author]
CORPORATE SOURCE: Dep. Chem. Eng., Tianjin Univ., Tianjin 300072, China
SOURCE: Biotechnology Progress, (July-Aug., 1998) Vol. 14, No. 4, pp. 594-600. print.
CODEN: BIPRET. ISSN: 8756-7938.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Sep 1998
Last Updated on STN: 21 Sep 1998

AB Affinity filtration is a developing protein purification technique that combines the high selectivity of affinity chromatography and the high processing speed of membrane filtration. In this work a lumped kinetic model was developed to describe the whole affinity filtration process, including broth feeding, contaminant washing, and elution steps. Affinity filtration experiments were conducted to evaluate the model using bovine serum albumin as a model protein and a highly substituted Blue Sepharose as an affinity adsorbent. The model with nonadjustable parameters agreed fairly to the experimental results. Thus, the performance of the affinity filtration in processing a crude broth containing contaminant proteins was analyzed by computer simulations using the lumped model. The simulation results show that there is an optimal protein loading for obtaining the maximum recovery yield of the desired protein with a constant purity at each operating condition. The concentration of a crude broth is beneficial in increasing the recovery yield of the desired protein. Using a constant amount of the affinity adsorbent, the recovery yield can be enhanced by decreasing the solution volume in the stirred tank due to the increase of the adsorbent weight fraction. It was found that the lumped kinetic model was simple and useful in analyzing the whole affinity filtration process.

L6 ANSWER 23 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 9
ACCESSION NUMBER: 1996:327053 BIOSIS
DOCUMENT NUMBER: PREV199699049409
TITLE: A colorimetric assay for estimation of polyethylene glycol and polyethylene glycolated protein using ammonium ferrothiocyanate.
AUTHOR(S): Nag, Alo; Mitra, Gargi; Ghosh, Prahlad C. [Reprint author]
CORPORATE SOURCE: Dep. Biochemistry, Univ. Delhi South Campus, Benito Juarez Road, New Delhi-110021, India
SOURCE: Analytical Biochemistry, (1996) Vol. 237, No. 2, pp. 224-231.
CODEN: ANBCA2. ISSN: 0003-2697.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Jul 1996
Last Updated on STN: 26 Sep 1996

AB A colorimetric method for quantitative assay of polyethylene glycol (PEG) described here is based on partitioning of a chromophore present in ammonium ferrothiocyanate reagent from an aqueous to a chloroform phase in the presence of PEG. The method is simple, reproducible, and can detect PEG in amounts as low as 5 mu-g. It gives a linear response over a range of 5-100 mu-g. The absence of any interference by proteins makes the assay equally suitable for the estimation of PEG in PEG-protein conjugates. The method was employed to monitor the separation profile of

a mixture of free and PEG-5000 coupled to bovine serum albumin during purification through a gel filtration column. In this report we have also demonstrated for the first time an assay method which permits a critical evaluation of pharmacokinetic properties of any PEG-protein conjugate under in vivo conditions.

L6 ANSWER 24 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 10

ACCESSION NUMBER: 1994:442616 BIOSIS
DOCUMENT NUMBER: PREV199497455616
TITLE: Localization and purification of serum albumin in the testis of Xenopus laevis.
AUTHOR(S): Nakamura, Masahisa [Reprint author]; Yamanobe, Tomoyo; Takase, Minoru
CORPORATE SOURCE: Lab. Amphibian Biol., Fac. Sci., Hiroshima Univ., 1-3-1 Kagamiyama, Higashi-Hiroshima, Hiroshima 724, Japan
SOURCE: Zoological Science (Tokyo), (1994) Vol. 11, No. 2, pp. 285-290.
CODEN: ZOSCEX. ISSN: 0289-0003.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 11 Oct 1994
Last Updated on STN: 12 Oct 1994

AB The distribution of serum albumin is of interest in the Xenopus (X.) laevis testis, since albumin is probably a major protein that binds testosterone (T) in the plasma and interstitial fluid. This study was undertaken to determine the localization and purification of serum albumin in the X. laevis testis. The interstitial tissue and spermatogonia immunoreacted strongly with a sheep antiserum raised against X. laevis albumin. A weak staining was also seen in spermatocytes and early spermatids, but there was no staining in Sertoli cells. In order to clarify whether serum albumin was really localized on the surface of testicular cells in the X. laevis testis, a membrane-rich fraction was prepared from testes and extracted with 0.6 M KCl. The KCl extract was then subjected to gel filtration, ammonium sulfate precipitation and high-performance liquid chromatography (HPLC). A protein with Mr=74 kD was obtained by this procedure and its NH-2-terminal amino acid sequence was determined. The sequence of the first 19 amino acids was DTDADXXKXIADVYTALTE, suggesting that this protein was identical to serum albumin (Mr=74 kD). When the membrane fraction of blood cells in this animal was handled in the same manner, no appreciable amount of albumin was detected. These results suggest that the 74 kD serum albumin, possibly associated with bound T, may play an important role in the differentiation of germ cells during spermatogenesis of X. laevis testis.

L6 ANSWER 25 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:190160 CAPLUS
DOCUMENT NUMBER: 118:190160
ORIGINAL REFERENCE NO.: 118:32650h,32651a
TITLE: metal chelation chromatographic purification of serum albumin
INVENTOR(S): Otomo, Reiko; Kaneko, Takashi; Kakiya, Hitoshi
PATENT ASSIGNEE(S): Tosoh Corp, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

JP 05023195 A 19930202 JP 1991-204571 19910722
JP 3151867 B2 20010403
PRIORITY APPLN. INFO.: JP 1991-204571 19910722
AB The serum albumin (I) is easily purified by metal-chelating chromatog. I is first adsorbed onto a carrier containing a metal, especially Zn, by chelation, and then eluted with a glycine-containing solution The I can be further purified with, e.g., gel filtration. Purification of recombinant rabbit I from MeOH-utilizing yeast cells harboring pYRSA3 was shown.

L6 ANSWER 26 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:633779 CAPLUS
DOCUMENT NUMBER: 119:233779
ORIGINAL REFERENCE NO.: 119:41525a,41528a
TITLE: Combined Cohn/chromatography purification process for the manufacturing of high purity human albumin from plasma
AUTHOR(S): Veron, J. L.; Gattel, P.; Pla, J.; Fournier, P.; Grandgeorge, M.
CORPORATE SOURCE: Pasteur Merieux Serums Vaccins, Marcy-l'Etoile, 69280, Fr.
SOURCE: Colloque INSERM (1993), 227(Biotechnology of Blood Proteins), 183-8
CODEN: CINMDE; ISSN: 0768-3154
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cohn's alc. fractionation method is still today the most widely used process to purify human albumin from plasma. Pasteurized Cohn's albumin is considered as clin. safe with regard to the risk of blood-borne virus transmission. Current such albumin prepns. have an electrophoretic purity of ≈97-98% and contain 2-5% high-mol. weight aggregates (partially heat denatured impurities bound to albumin). The authors now have developed a new manufacturing process which adds to Cohn's fractionation a 2 steps column chromatog. purification using Spherosil gels. Cohn's supernatant IV or precipitate V obtained from 420 L plasma was successively processed on a 125 L DEAE-Spherodex column and a 50 L QMA-Spherosil column. The purified albumin was finally concentrated, stabilized and pasteurized as usual. The overall yield of chromatog. was 91%. Final albumin was 100% pure by cellulose acetate electrophoresis. No contaminant was detected by two-dimensional crossed immunoelectrophoresis. Gel filtration on G 200 and HPLC on TSK 4000 showed practically no high-mol.-weight aggregate. Furthermore, chromatog. purification per se demonstrated varying efficacy to remove viruses, from 0 (poliovirus) to 7.7 log 10 (HIV-1).

L6 ANSWER 27 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:633776 CAPLUS
DOCUMENT NUMBER: 119:233776
ORIGINAL REFERENCE NO.: 119:41525a,41528a
TITLE: Design of a large scale chromatographic plant for the purification of human albumin
AUTHOR(S): Micucci, V.; Young, I. F.; Yap, H. B.; Davies, J. R.; Herrington, R. W.; White, B. R.; Naylor, G.; Turner, P. J.
CORPORATE SOURCE: CSL Ltd., Parkville, 3042, Australia
SOURCE: Colloque INSERM (1993), 227(Biotechnology of Blood Proteins), 155-61
CODEN: CINMDE; ISSN: 0768-3154
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Design and development of the chromatog. plant for purification of human albumin based on Cohn's cold ethanol precipitation and ion-exchange and gel-

filtration chromatog. are discussed.

L6 ANSWER 28 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1994:157894 BIOSIS
DOCUMENT NUMBER: PREV199497170894
TITLE: Purification and quantification of albumin-like protein (alpha-1-protein) from masu salmon, Oncorhynchus masou.
AUTHOR(S): Ura, Kazuhiro [Reprint author]; Hara, Akihiko; Yamauchi, Kohei
CORPORATE SOURCE: Lab. Fresh-Water Fish-Culture, Fac. Fish., Hokkaido Univ., Hokkaido, Japan
SOURCE: Bulletin of the Faculty of Fisheries Hokkaido University, (1993) Vol. 44, No. 3, pp. 95-104.
CODEN: HOSGAD. ISSN: 0018-3458.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 8 Apr 1994
Last Updated on STN: 8 Apr 1994
AB Albumin-like protein (alpha-1-protein) was purified from the serum of masu salmon, Oncorhynchus masou, by a combination of salting out, ion-exchange chromatography, gel filtration and isoelectric focusing. Using a polyvalent antiserum to masu salmon serum proteins, immunoelectrophoresis of purified alpha-1-protein revealed a single precipitin line. Conversely, an antiserum raised against purified alpha-1-protein gave rise to a single precipitin line in immunoelectrophoresis of masu salmon serum. Disc electrophoresis of the alpha-1-protein revealed one band. These results indicate that the alpha-1-protein preparation was electrophoreticaliy and immunologically pure. The molecular weight of masu salmon alpha-1-protein was estimated to be 75,000 by means of SDS-PAGE. The concentration of the purified masu salmon alpha-1-protein was estimated using the Bio-Rad Protein Assay with bovine albumin as the standard. The concentration of alpha-1-protein in masu salmon serum was measured by single radial immunodiffusion (SRID) using the antiserum to alpha-1-protein and purified alpha-1-protein as the standard. The mean serum levels of al-protein were 8.0, 7.8, and 7.8 mg/ml for pre-, mid- and full-smolts juvenile masu salmon, respectively.

L6 ANSWER 29 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:507811 CAPLUS
DOCUMENT NUMBER: 117:107811
ORIGINAL REFERENCE NO.: 117:18713a,18716a
TITLE: Purification of serum albumin
INVENTOR(S): Guddat, Werner; Uhlig, Herbert
PATENT ASSIGNEE(S): Impfstoffwerk Dessau-Tornau, Germany
SOURCE: Ger. (East), 3 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 299212	A7	19920409	DD 1986-298531	19861224
PRIORITY APPLN. INFO.:			DD 1986-298531	19861224

AB Heat-fractionated serum albumin is further purified from denatured lipoproteins and protein aggregates by (1) lyophilization of an aqueous solution, alone or combined with spray-drying, (2) deep-filtration, and (3) renewed lyophilization. The product is useful in media for cell and

embryo culture and as a stabilizer for diagnostic reagents.

L6 ANSWER 30 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:546442 CAPLUS
DOCUMENT NUMBER: 117:146442
ORIGINAL REFERENCE NO.: 117:25297a,25300a
TITLE: Purification of bovine serum albumin
AUTHOR(S): Zhao, Ming; Sun, Ce
CORPORATE SOURCE: Shanghai Inst. Biochem., Acad. Sin., Shanghai, 200031, Peop. Rep. China
SOURCE: Shengwu Huaxue Yu Shengwu Wuli Xuebao (1992), 24(1), 89-93
CODEN: SHWPAU; ISSN: 0582-9879
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Bovine serum albumin was purified by combining traditional methods with affinity chromatog. (NH4)2SO4 fractionation, ethanol fractionation, lectin affinity chromatog. (Con A-Sepharose 6B and WGA-Sepharose 6B), and gel filtration have been adopted. Purified bovine serum albumin showed a single protein band when subjected to disc electrophoresis and stained with Coomassie Brilliant Blue. The purity of BSA prepared was superior to the product of either Sigma or Serva. It is especially suitable for
neoglycoprotein preparation

L6 ANSWER 31 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1992:300005 BIOSIS
DOCUMENT NUMBER: PREV199294013155; BA94:13155
TITLE: METHODS FOR THE ISOLATION OF INTACT PLATELETS FROM THE BLOOD.
AUTHOR(S): ERMOLAEVA T A [Reprint author]; GOLOVINA O G; PONOMARENKO V M
CORPORATE SOURCE: ST PETERSBURG RES INST HEMATOL BLOOD TRANSFUS, MINIST HEALTH RUSS, ST PETERSBURG, RUSS
SOURCE: Laboratornoe Delo, (1991) No. 10, pp. 33-38.
CODEN: LABDAZ. ISSN: 0023-6748.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: RUSSIAN
ENTRY DATE: Entered STN: 27 Jun 1992
Last Updated on STN: 27 Jun 1992
AB A combined method of platelet isolation in albumin density gradient followed by gel filtration through a column packed with Sepharose 2B appears to be the best for the isolation of intact platelets free from plasma proteins, fit for research purposes; for clinical studies a more available technique for intact platelet isolation in albumin density gradient is recommended.

L6 ANSWER 32 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:62411 CAPLUS
DOCUMENT NUMBER: 112:62411
ORIGINAL REFERENCE NO.: 112:10587a,10590a
TITLE: Chromatographic purification of human albumin. Technical and economic aspects
AUTHOR(S): Stoltz, J. F.; Rivat, C.; Geschier, C.; Colosetti, P.; Sertillanges, P.
CORPORATE SOURCE: INSERM, Vandoeuvre-les-Nancy, 54511, Fr.
SOURCE: Colloque INSERM (1989), 175(Biotechnol. Proteines Plasma), 191-200
CODEN: CINMDE; ISSN: 0768-3154
DOCUMENT TYPE: Journal

LANGUAGE: English

AB The purification of human albumin on a pilot and/or industrial scale was used for the first time by the firms of IBF and Pharmacia in 1981. The Institut Merieux and Rhone-Poulenc developed, for placental blood, a new process (Spherosil-Spheradex process). This work is an evaluation of that process applied to the purification of human plasma albumin. The plasma is pretreated to recover some coagulation factors and to remove such undesirable substances as the euglobulins, lipoproteins, and insol. matter. The plasma is filtered under sterile conditions and undergoes chromatog. treatment in 3 steps. The first step uses a DEAE-Spherodex support which retains the neg. charged albumin. The eluted albumin is injected on the second support, QMA-Spherosil, which retains pigments. A third step, based on COOH-Spherodex, gives a solution of albumin which is concentrated, ultrafiltered, and adjusted to the final formulation. Each chromatog. support is intensively washed several times before re-equilibration and reuse. The final product is nearly 100% pure, contains few polymers (<0.5%) and appeared to be very well tolerated by patients (5 lots have already been tested). The advantages and disadvantages of such a process in comparison to the traditional fractionation of Cohn and problems related to scale-up are discussed.

L6 ANSWER 33 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:639357 CAPLUS
DOCUMENT NUMBER: 111:239357
ORIGINAL REFERENCE NO.: 111:39639a,39642a
TITLE: Separation of a protein precipitate by tangential microfiltration during human albumin purification
AUTHOR(S): Grandgeorge, M.; Veron, J. L.; Cueille, G.
CORPORATE SOURCE: Inst. Merieux, Marcy l'Etoile, 69280, Fr.
SOURCE: Colloque INSERM (1989), 175(Biotechnol. Proteines Plasma), 25-32
CODEN: CINMDE; ISSN: 0768-3154
DOCUMENT TYPE: Journal
LANGUAGE: French

AB The product to be treated is an aqueous/alc. solution of albumin extracted from human placentas and containing 0.5% of precipitate (called FC2) which must be eliminated.

This process involves daily treatment of 32,000 L and elimination of 160 kg of precipitate on 9 centrifuges. Tangential-flow filtration was an alternative to centrifugation. Laboratory trials permitted selection of an appropriate membrane for regulator chemical cycles. A pilot device designed as a plane filter with 2 m2 of membrane working daily performed 270 cycles without any decrease of the yield obtained with the original membranes. An extrapolation trial with a filter equipped with a 9 m2 surface gave satisfactory results, allowing study of the pumps required, the optimal design of parallel plates/series plates scale apparatus as well as possible problems of albumin denaturation. An industrial scale apparatus of 72 m2, automated, was ordered.

L6 ANSWER 34 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1989:240995 BIOSIS
DOCUMENT NUMBER: PREV198987122060; BA87:122060
TITLE: AFFINITY CROSS-FLOW FILTRATION EXPERIMENTAL AND MODELING WORK USING THE SYSTEM OF HSA AND CIBACRON BLUE AGAROSE.
AUTHOR(S): HERAK D C [Reprint author]; MERRILL E W
CORPORATE SOURCE: DEP CHEM ENG, MASS INST TECHNOL, CAMBRIDGE, MASS, USA
SOURCE: Biotechnology Progress, (1989) Vol. 5, No. 1, pp. 9-17.
CODEN: BIPRET. ISSN: 8756-7938.

DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 20 May 1989
Last Updated on STN: 20 May 1989
AB A theoretical appraoch to the prediction of the performance of batch operation of affinity cross-flow filtration (ACFF) for the separation of biomolecules is presented. The model applies general affinity theory to the ACFF system. Experiments were conducted using the affinity system of Cibacron Blue-agarose and human serum albumin (HSA). The predictions of the model agree well with the experimental results. The slow kinetics of release of the adsorbed protein during the washing stage can be utilized to minimize the loss of this protein.

L6 ANSWER 35 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1987:433726 BIOSIS
DOCUMENT NUMBER: PREV198733092553; BR33:92553
TITLE: NEW SUPPORTS FOR PLASMA PROTEIN FRACTIONATION OPTIMIZATION AND APPLICATION OF GEL FILTRATION USING AN IMPROVED SEPHACRYL S-200 GEL.
AUTHOR(S): BERGLOF J H [Reprint author]; ERIKSSON S; ANDERSSON I
CORPORATE SOURCE: PHARMACIA AB, PROCESS SEPARATION DIV, UPPSALA, SWEDEN
SOURCE: Dev. Biol. Stand., (1987) pp. 25-30. INTERNATIONAL ASSOCIATON OF BIOLOGICAL STANDARDIZATION (ED.). DEVELOPMENTS IN BIOLOGICAL STANDARDIZATION, VOL. 67. STANDARDIZATION IN BLOOD FRACTIONATION INCLUDING COAGULATION FACTORS; SYMPOSIUM, MELBOURNE, VICTORIA, AUSTRALIA, MAY 7-9, 1986. VII+382P. S. KARGER AG: BASEL, SWITZERLAND; NEW YORK, NEW YORK, USA. ILLUS. PAPER. Publisher: Series: Developments in Biological Standardization.
CODEN: DVBSA3. ISSN: 0301-5149. ISBN: 3-8055-4607-6.
DOCUMENT TYPE: Book
Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 10 Oct 1987
Last Updated on STN: 10 Oct 1987

L6 ANSWER 36 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1988:201092 CAPLUS
DOCUMENT NUMBER: 108:201092
ORIGINAL REFERENCE NO.: 108:32957a,32960a
TITLE: Purification of bovine serum albumin (BSA) in high efficiency
AUTHOR(S): Buyukkoksal, Gulden; Cirakoglu, Beyazit; Bermek, Engin
CORPORATE SOURCE: Biyol. Bolumu, Temel Bilimler Arastirma Enst., Gebze, Turk.
SOURCE: Doga: Turk Biyoloji Dergisi (1987), 11(3), 97-101
CODEN: DBSEEC; ISSN: 1010-7576
DOCUMENT TYPE: Journal
LANGUAGE: Turkish
AB BSA was purified by gel filtration on Sephadex G 25 according to a procedure modified after Cohn's method. BSA thus obtained was found to be 95.4% pure and in the same quality and efficiency as the Sigma (Cat No A-7030) product. As such, it may replace its imported counterpart(s) in all relevant field applications.

L6 ANSWER 37 OF 59 MEDLINE on STN
ACCESSION NUMBER: 87276901 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3038636

TITLE: Large scale use of Spherosil ion exchangers in plasma fractionation.
AUTHOR: Tayot J L; Tardy M; Gattel P; Cueille G; Liautaud J
SOURCE: Developments in biological standardization, (1987) Vol. 67, pp. 15-24.
Journal code: 0427140. ISSN: 0301-5149.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198709
ENTRY DATE: Entered STN: 5 Mar 1990
Last Updated on STN: 5 Mar 1990
Entered Medline: 23 Sep 1987

AB Spherosil microbeads are spherical and made of porous silica. Their surface is coated with hydrophilic and/or hydrophobic polymers. They are specially designed for the separation of proteins on an industrial scale either by ion exchange or by bioaffinity chromatography. Since 1980, large columns have been used in Institut Merieux for the purification of placental albumin and several vaccines.
Here we describe a chromatographic process for the purification of human albumin and immunoglobulins (IgG) from 25 1 of plasma per cycle. First the plasma was freed of the coagulation factors and then clarified at pH 5.25. The corresponding supernatant was filtered and processed in sterile conditions. Albumin was then purified by ion exchange on 3 successive columns, respectively containing: 6.25 kg of DEAE SPHEROSIL W-1000; 3.5 kg of QMA SPHEROSIL PH-1000; 8 kg of COOH-SPHEROSIL W-1000. The concentration and pH of the buffers were selected to reduce, as much as possible, the total quantity of ion exchangers required per cycle. IgG were then purified from the filtrate of the first of the previous columns. 1 column of 6.25 kg of DEAE SPHEROSIL W-1000 was used at pH 6.8. The selected chromatographic parameters allowed us to demonstrate a total elimination of HBs Ag and HB Virus when voluntarily added to an initial sample (RIA determination and HBV-DNA analysis by molecular hybridization). A second column of a large pore anion exchanger: DEAE SPHEROSIL LP-3000 was added at the end of the IgG purification, as a final security to avoid any risk of transmitting the Hepatitis B virus. The yield and quality of the final products will be presented.

L6 ANSWER 38 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:192875 CAPLUS
DOCUMENT NUMBER: 104:192875
ORIGINAL REFERENCE NO.: 104:30431a,30434a
TITLE: Method and apparatus for removing albumin and degradation products from water
INVENTOR(S): Hofmann, Hellmut Gunter
PATENT ASSIGNEE(S): Fed. Rep. Ger.
SOURCE: Ger. Offen., 13 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3434678	A1	19860220	DE 1984-3434678	19840921
DE 3434678	C2	19900823		
US 4620929	A	19861104	US 1984-681320	19841213
PRIORITY APPLN. INFO.:			DE 1984-3429691 A1	19840811
			DE 1984-3434678 A	19840921

AB Albumin and its decomposition products are removed by pouring a high contact

area filter material through the water; the filter consists of an inert support material containing slow-release bacteriophilic nutrients or with these nutrients added and aerobic and anaerobic reaction zones are established in the filter material. The support may be a plastic, e.g., a foamed polymer, or expanded clay, and is poured through at a slow rate. The treated water is recycled to an aquarium or fish tank with air contact or through a diffusion. The O and NO3- content of the water can be monitored to control dosage when the nutrients are added.

L6 ANSWER 39 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:578274 CAPLUS
DOCUMENT NUMBER: 105:178274
ORIGINAL REFERENCE NO.: 105:28643a,28646a
TITLE: Purification of human serum albumin with hemosorbents
AUTHOR(S): Nikolaev, V. G.; Metal'nikova, N. P.; Markovich, M. N.; Aver'eva, E. V.; Rozentsveig, E. L.; Sarnatskaya, V. V.
CORPORATE SOURCE: Inst. Probl. Onkol., Kiev, USSR
SOURCE: Dopovidi Akademii Nauk Ukrains'koi RSR, Seriya B: Geologichni, Khimichni ta Biologichni Nauki (1986), (8), 65-8
CODEN: DANND6; ISSN: 0377-9785
DOCUMENT TYPE: Journal
LANGUAGE: Ukrainian
AB Low-mol.-weight impurities adsorbed on human serum albumin were removed by filtration through a column of hemosorbent SKN-1K [104859-69-0]. The purified albumin had lower denaturation temperature than the starting material (71.2 and 84.3°, resp.). Binding capacity for Methyl Red and Phenol Red was .apprx.5- and .apprx.3-fold higher after the purification This method can be used for the purification of human serum albumin for i.v. clin. administration.

L6 ANSWER 40 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 11
ACCESSION NUMBER: 1986:92428 BIOSIS
DOCUMENT NUMBER: PREV198681002844; BA81:2844
TITLE: INSULIN-STIMULATING PEPTIDE FROM A TRYPTIC DIGEST OF BOVINE SERUM ALBUMIN PURIFICATION AND CHARACTERIZATION.
AUTHOR(S): UENO A [Reprint author]; HONG Y-M; ARAKAKI N; TAKEDA Y
CORPORATE SOURCE: DEP BIOCHEMISTRY, SCH DENTISTRY, UNIV TOKUSHIMA, TOKUSHIMA 770, JAPAN
SOURCE: Journal of Biochemistry (Tokyo), (1985) Vol. 98, No. 2, pp. 269-278.
CODEN: JOBIAO. ISSN: 0021-924X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 25 Apr 1986
Last Updated on STN: 25 Apr 1986
AB A procedure was established for isolation of a low molecular weight polypeptide with insulin-stimulating activity in apparent homogeneity from a tryptic digest of bovine serum albumin on a semipreparative scale. Purification of this insulin-stimulating peptide (ISP) was monitored by an adipose-explant assay in which stimulation of fatty acid synthesis from glucose by insulin was measured. The polypeptide was purified by a combination of DEAE-cellulose column chromatography, gel filtration on Bio-Gel P-10, hydrophobic chromatography on a semipreparative C18 reversed-phase HPLC column, and ion exchange chromatography on an SP-5PW HPLC column. The primary structure of ISP was

deduced. ISP is a two-chain polypeptide consisting of 71 amino acid residues, and corresponds essentially to residues 115-143 and 144-184 (185) of bovine serum albumin connected to each other by a disulfide bridge. But comparison of the sequence of ISP with that of the relevant regions of bovine serum albumin determined by Brown indicated the presence of one tyrosine insertion between residues 155 and 156 of albumin. Therefore, the molecular weight of ISP was calculated to be 8,496.

L6 ANSWER 41 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:135923 CAPLUS
DOCUMENT NUMBER: 104:135923
ORIGINAL REFERENCE NO.: 104:21383a,21386a
TITLE: Treatment of placenta plasma by ultrafiltration method - albumin concentration and purification
AUTHOR(S): Wang, Shuping; He, Dingxin
CORPORATE SOURCE: Beijing Polytech. Univ., Beijing, Peop. Rep. China
SOURCE: Mo Fenli Kexue Yu Jishu (1985), 5(3), 56-65
CODEN: MFKJDB; ISSN: 0254-6140
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Medium scale expts. were conducted to investigate the feasibility of applying ultrafiltration to produce albumins from placenta plasma for pharmaceutical uses. A series of 10, 5, and 1 μm honeycomb tubular cartridges were used for pretreatment of placenta plasma. An external pressure tubular bundle ultrafiltration instrument and polysulfone membranes were used for isolating albumins. Albumins produced met the standard set by the Chinese government for human uses. This method is also economical and can be used to replace the current salting-out-dialysis method.

L6 ANSWER 42 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1981:109162 CAPLUS
DOCUMENT NUMBER: 94:109162
ORIGINAL REFERENCE NO.: 94:17743a,17746a
TITLE: Albumin purification by ion exchange chromatography
AUTHOR(S): Curling, J. M.
CORPORATE SOURCE: Pharm. Fine Chem. AB, Uppsala, S-751 04/1, Swed.
SOURCE: Methods Plasma Protein Fractionation (1980), 77-91.
Editor(s): Curling, John M. Academic: London, Engl.
CODEN: 44YZA5
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Plasma albumin was recovered in 90-95% yield by 4 chromatog. stages. After gauze filtration and partial clarification by centrifugation plasma was subjected to gel filtration on Sephadex G-25 with 0.025M NaOAc to remove the anticoagulant and salts. The pH was adjusted to 5.2 and precipitated euglobulins were removed. Ion exchange chromatog. on DEAE-Sepharose CL-6B used NaOAc buffers and IgG fractions were discarded. The pH was adjusted to 4.8 and chromatographed on CM-Sepharose CL-6B with NaOAc buffers; the pH was adjusted to 7 with a final gel filtration on Sephacryl S-200 with 0.05M NaCl. Albumin was finally purified by ultrafiltration. Thus, albumin was kept in solution throughout the processes and no precipitants were added.

L6 ANSWER 43 OF 59 MEDLINE on STN
ACCESSION NUMBER: 80036064 MEDLINE
DOCUMENT NUMBER: PubMed ID: 493795
TITLE: [Purification and concentration of albumin solutions by diafiltration using a parallel membrane dialyzer].

Epuration et concentration directes de solutions d'albumine par diafiltration sur echangeur a plaques paralleles.
AUTHOR: Faure A; Malbrancq J M; Lenoir P; Steinbuch M; Niviere P; Paubel J P; Arnaud R
SOURCE: Revue francaise de transfusion et immuno-hematologie, (1979 Jun) Vol. 23, No. 3, pp. 245-50.
Journal code: 7509497. ISSN: 0338-4535.
PUB. COUNTRY: France
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: French
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197912
ENTRY DATE: Entered STN: 15 Mar 1990
Last Updated on STN: 15 Mar 1990
Entered Medline: 20 Dec 1979
AB The last two years, artificial Kidneys have been used for purification and concentration of human serum albumin solutions coming from plasma cracking in two Blood Transfusion Centers. Results are easily reproducible and the apparatus is reliable and of low cost. The properties of dialysis and ultrafiltration of the A.N. 69 membrane are useful for eliminating ethanol and water. The artificial Kidneys are effective at low pressure. It is then possible to use peristaltic pumps and to have a closed circuit. The whole apparatus must be sterilized with chemical reagents.

L6 ANSWER 44 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1978:171089 BIOSIS
DOCUMENT NUMBER: PREV197865058089; BA65:58089
TITLE: STUDY OF STEROID PROTEIN BINDING BY A NOVEL 2 TIER COLUMN EMPLOYING CIBACRON BLUE F-3G-A SEPHAROSE 4B PART 1 SEX HORMONE BINDING GLOBULIN.
AUTHOR(S): IQBAL M J [Reprint author]; JOHNSON M W
CORPORATE SOURCE: DEP BIOCHEM ENDOCRINOL, CHELSEA HOSP WOMEN, DOVEHOUSE ST, LONDON SW3 6LJ, ENGL, UK
SOURCE: Journal of Steroid Biochemistry, (1977) Vol. 8, No. 9, pp. 977-984.
CODEN: JSTBBK. ISSN: 0022-4731.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Cibacron Blue F3G-A-Sepharose gel was utilized as an affinity matrix for the removal of albumin from plasma prior to gel filtration on Sephadex LH-20. The incorporation of affinity chromatography and gel filtration in the same column allows for direct and simultaneous evaluation of steroid binding to both non-specific and specific binding components in human plasma. The binding parameters of sex hormone binding globulin, SHBG, are presented. The application of 5α-dihydrotestosterone-3(O-carboxymethyl)oxime-human serum albumin, DHT-3-CMO-HSA, conjugate used in conjunction with Cibacron Blue F3G-A-Sepharose is discussed together with results on the relative affinity of steroid derivatives pertinent to the affinity purification of SHBG. The usefulness of this affinity matrix in enrichment of steroid haptens and its possible application to purifying antibodies is also discussed.

L6 ANSWER 45 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 12
ACCESSION NUMBER: 1977:238601 BIOSIS
DOCUMENT NUMBER: PREV197764060965; BA64:60965
TITLE: A CHROMATOGRAPHIC PROCEDURE FOR THE PURIFICATION OF HUMAN PLASMA ALBUMIN.

AUTHOR(S): CURLING J M; BERGLOF J; LINDQUIST L-O; ERIKSSON S
SOURCE: Vox Sanguinis, (1977) Vol. 33, No. 2, pp. 97-107.
CODEN: VOSAAD. ISSN: 0042-9007.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable
AB Albumin is obtainable from human blood plasma by an ion exchange chromatographic procedure in a yield of about 95% and a purity well above Pharmacopoeia requirements. Cryosupernatant, factor IX depleted plasma is precipitated with 12 and 25% wt/vol polyethylene glycol 4000. The 2nd precipitate is dissolved to 8% wt/vol protein and applied to a DEAE-Sephadex A-50 or a DEAE-Sepharose CL-6B column. Albumin is further purified by chromatography on SP-Sephadex C-50. Gel filtration on Sephadex G-25 is used for desalting prior to lyophilization. The process was initially designed for fractionation of 50 l plasma/wk but can be further scaled up to meet considerably higher capacity requirements.

L6 ANSWER 46 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1977:102800 CAPLUS
DOCUMENT NUMBER: 86:102800
ORIGINAL REFERENCE NO.: 86:16207a,16210a
TITLE: Purification of human albumin
PATENT ASSIGNEE(S): Laboratorios Hubber S. A., Spain
SOURCE: Span., 5 pp.
CODEN: SPXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Spanish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ES 420585	A1	19760916	ES 1973-420585	19731109
PRIORITY APPLN. INFO.:			ES 1973-420585 A	19731109

AB Blood plasma albumin is purified from Cohn fraction IV by solvent precipitation and ion-exchange resins. Thus, 1000 g fraction IV was dissolved in 10 L distilled H2O. The solution was adjusted to pH 6.1 and cooled at -6.5%. EtOH was added to 40%, and the mixture was centrifuged in the cold. The pH of the supernatant was reduced to 4.8; the temperature was lowered to -8° with a 40% EtOH concentration maintained; and the mixture was centrifuged again.
The precipitate was dissolved in 2 vols. H2O; DEAE-cellulose equilibrated to pH 4.9 was added; and the mixture was filtered. Impurities are retained on the resin. The filtrate is lyophilized and contains electrophoretically pure albumin.

L6 ANSWER 47 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1974:74320 CAPLUS
DOCUMENT NUMBER: 80:74320
ORIGINAL REFERENCE NO.: 80:11969a,11972a
TITLE: Purification of human albumin from solutions with low grade of electrophoretic purity
INVENTOR(S): Stepanek, Ivan; Jusko, Bartolomej
SOURCE: Czech., 2 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

CS 150307 B1 19730904 CS 1970-828 19700206
PRIORITY APPLN. INFO.: CS 1970-828 A 19700206
AB Conditions are given for the removal of nonalbumin protein contaminants of blood plasma by alc. precipitation and sorption on Al(OH)3 gel to give a product for i.v. application. Thus, a paste of the Cohn fraction V was dissolved in apyrogenic water to a protein concentration 9-12% and EtOH concentration 8-11% at pH 5.4 ± 0.4. The solution was treated with a sterile Al(OH)3 gel to obtain a concentration 4.5 ± 0.5 g Al2O3/1000 ml solution, the suspension stirred 2-4 hr at -3° to 2° and pH 5.4 ± 0.4, the solid phase centrifuged and the supernatant filtered. It was free of Al ions.

L6 ANSWER 48 OF 59 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 13
ACCESSION NUMBER: 1972:171823 BIOSIS
DOCUMENT NUMBER: PREV197254001817; BA54:1817
TITLE: AN ENDO NUCLEASE ASSOCIATED WITH BOVINE PLASMA ALBUMIN FRACTION PURIFICATION AND SOME PROPERTIES OF THE ENZYME.
AUTHOR(S): ANAI M; HARAGUCHI H; TAKAGI Y
SOURCE: Journal of Biological Chemistry, (1972) Vol. 247, No. 1, pp. 193-198.
CODEN: JBCHA3. ISSN: 0021-9258.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L6 ANSWER 49 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1972:142998 CAPLUS
DOCUMENT NUMBER: 76:142998
ORIGINAL REFERENCE NO.: 76:23237a,23240a
TITLE: Purification of technical sodium sulfate
INVENTOR(S): Janecki, Jerzy; Minkowski, Jozef
PATENT ASSIGNEE(S): Drwalewskie Zaklady Przemyslu Bioweterynaryjnego
SOURCE: Pol., 2 pp.
CODEN: POXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Polish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 64047		19711110	PL	19670712

AB To a 1-1.5% aqueous solution of albumin obtained from animal serum, powdered Na2SO4 containing 5-15% inorg. admixts. is introduced at 40° and pH 7.5-8.0. After the Na2SO4 concentration reaches 22-8%, the temperature is raised gradually to 90-100° and denatured albumin with adsorbed Ca, Mg, Fe, Pb, and NH4 chlorides, and other salts filtered off. From the filtrate purified with active C, crystalline Na2SO4 containing ≤0.1% inorg. impurities is separated

L6 ANSWER 50 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1970:118421 CAPLUS
DOCUMENT NUMBER: 72:118421
ORIGINAL REFERENCE NO.: 72:21306h,21307a
TITLE: Isolation of albumin from blood plasma or serum

INVENTOR(S): Bagdy, Daniel; Barabas, Eva B.; Bereznay, Tibor; Kazi, Erzsebet F.; Katona, Laszlo
PATENT ASSIGNEE(S): Gyogyszerkutato Intezet
SOURCE: Hung., 10 pp.
CODEN: HUXXAT
DOCUMENT TYPE: Patent
LANGUAGE: Hungarian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
HU 157010		19700131	HU	19680904

AB Plasma or serum proteins are precipitated in the presence of ClCH2CO2H or cl2CHCO2H and the albumin content of the precipitate dissolved selectively by a solvent mixture Thus, 85 ml 40% aqueous ClCH2CO2H, and subsequently 275 ml 40% Cl3CCO2H were added to 1.7 l. human plasma, the precipitate was separated, and extracted with a 2:88:10 mixture of CHCl3-EtOH-H2O containing 1% (wt/v) Cl2CHCO2H . The mixture was filtered, the filtrate decolorized with C, filtered through Celite 535, and treated with 12% NH4OH solution to pH 5.20. The precipitate was dissolved in H2O, the solution dialyzed against H2O, Seitz-filtered, and freeze-dried to give 17.6 g albumin/l. plasma (55% yield based on the starting plasma), 98% purity, ash content 0.2%.

L6 ANSWER 51 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1971:417771 CAPLUS
DOCUMENT NUMBER: 75:17771
ORIGINAL REFERENCE NO.: 75:2833a,2836a
TITLE: Use of the reactivity of albumins for removing an excess of fluorochrome from labeled conjugates of luminescent antibodies
AUTHOR(S): Verenkov, M. S.; Tabakov, P. K.
CORPORATE SOURCE: Saratov, USSR
SOURCE: Problemy Osobo Opasnykh Infektsii (1969), No. 2, 185-8
CODEN: POOIAJ; ISSN: 0370-1069
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Fluorescent-labeled antibody was purified from free fluorochrome by adding serum albumin and precipitating with 1M acetate buffer at 2-4°. The method was more effective than purification by gel filtration.

L6 ANSWER 52 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1970:62767 CAPLUS
DOCUMENT NUMBER: 72:62767
ORIGINAL REFERENCE NO.: 72:11457a,11460a
TITLE: Isolation and purification of serum albumin
AUTHOR(S): Ribarac-Stepic, Nevena; Kanazir, D.
CORPORATE SOURCE: Inst. Biol. Res., Belgrade, Yugoslavia
SOURCE: Arhiv Bioloskih Nauka (1967), 19(1-2), 1-4
CODEN: AVBNAN; ISSN: 0375-8575
DOCUMENT TYPE: Journal
LANGUAGE: Croatian
AB A method for the isolation and purification of hen serum albumin including the precipitation of albumin by organic solvents as described by Michael (1962) and its gel filtration by Flodin and Killander (1962) is given. The homogeneity of the preparation of serum was controlled by means of starch g el electrophoresis.

L6 ANSWER 53 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1964:475844 CAPLUS
DOCUMENT NUMBER: 61:75844
ORIGINAL REFERENCE NO.: 61:13134g-h
TITLE: Purification of high-molecular-weight solutions, especially salt-containing protein solutions
INVENTOR(S): Schoenenberger, Max; Erbach, Georg
PATENT ASSIGNEE(S): Behringwerke A.-G.
SOURCE: 4 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3148141		19640908	US 1961-122202	19610706
GB 988680			GB	
PRIORITY APPLN. INFO.:			DE	19600709

AB Solns. of high-mol.-weight solutes (beef albumin, inactivated poliomyelitis virus) are freed from low-mol.-weight solutes (inorg. salts, dyes, amino acids) in an apparatus in which a solution is recirculated through a series of ultrafiltration chambers in which the low-mol.-weight solutes are removed with much of the solvent and wasted. Fresh solvent is added as required to the closed system, and the process is continued until the desired purity is obtained. The semipermeable membranes of the ultrafilter are supported on filter paper on a metal screen.

L6 ANSWER 54 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1965:50799 CAPLUS
DOCUMENT NUMBER: 62:50799
ORIGINAL REFERENCE NO.: 62:8949a-b
TITLE: Purification of human albumin
PATENT ASSIGNEE(S): Gallardo Carrera, Felix
SOURCE: 5 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ES 304341		19641005	ES 1964-30434164	19640924

AB Albumin (I) prepared by low temperature-alc. processes may be freed of small amts. of α- and β-globulins and salts, as well as proteins unstable at 60°, by further fractionation. For example, 10 kg. I in paste form containing about 40% EtOH is dissolved in 20 l. H_2O at 2°. The turbid solution, containing about 10% EtOH, is stirred several hrs. at -2 to -3°, centrifuged, and the supernatant solution filtered to give a clear solution I is precipitated by adjusting to pH 4.9-5.0, adding EtOH by capillary tube to a final concentration of 40% while lowering the temperature to -8°, stirring for a few hrs., and centrifuging. The paste containing I is dissolved in 20 l. H_2O at 2°, clarified and sterilized by filtration, and lyophilized to give a pure, sterile, apyrogenic powder. The product showed 1 component by paper- and immunoelectrophoresis, and solns. of 15-25% showed no opalescence or precipitation when held 10 hrs. at 60° or 50 hrs. at 57° (usual stabilizers added).

L6 ANSWER 55 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1964:48092 CAPLUS
DOCUMENT NUMBER: 60:48092
ORIGINAL REFERENCE NO.: 60:8489f-g
TITLE: Physicochemical investigations of an isolated purified antibody
AUTHOR(S): Mohring, D.; Mueller, H. E.
CORPORATE SOURCE: Univ. Mainz, Germany
SOURCE: Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie (1963), 334, 269-74
CODEN: HSZPAZ; ISSN: 0018-4888
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Rabbits were sensitized with human albumin and the corresponding antigen-antibody ppts. were purified by gel filtration. Ultracentrifugation showed a homogeneous gradient and a sedimentation constant of 6.4S. A faster fraction, which appeared to be γ-globulin, also was seen. The mol. weight by light-scattering measurements on the main 6.4S fraction was 160,000-250,000. High-voltage electrophoresis failed to sep. the 2 components, but immunoelectrophoresis showed 2 protein bands in the γ-globulin position.

L6 ANSWER 56 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1960:61067 CAPLUS
DOCUMENT NUMBER: 54:61067
ORIGINAL REFERENCE NO.: 54:11782a-b
TITLE: Refined gelatin solutions
INVENTOR(S): Narath, Albert; Klotzer, Fritz
PATENT ASSIGNEE(S): Dr. C. Schleussner Fotowerke G. m. b. H.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1013021		19570801	DE 1956-SC19643	19560227

AB A refined gelatin solution is prepared and gelatins are produced from the latter for photographic purposes. Thus, 60 g. gelatin is dissolved in 400 cc. H_2O, and 6 g. albumin is added at 40°. The solution is treated with 2.4 g. KBr, and then 3.4 g. $AgNO_3$ in 10 cc. H_2O is stirred in. The mixture is heated on a water bath until coagulation of the albumin takes place. The gelatin solution is filtered off.

L6 ANSWER 57 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1954:18712 CAPLUS
DOCUMENT NUMBER: 48:18712
ORIGINAL REFERENCE NO.: 48:3436d-f
TITLE: The preparation and properties of human serum albumin separated from placental extracts
AUTHOR(S): Gordon, Frank H.; Hyndman, Lee A.; Bloom, F. C.; Anderson, H. D.; Taylor, Harold L.; McCall, Keith B.
CORPORATE SOURCE: Michigan Dept. of Health, Lansing
SOURCE: Journal of the American Chemical Society (1953), 75, 5859-64
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB A procedure is described for the separation and purification of albumin from human placental exts. Frozen placentas were thawed, chopped, and extracted with isotonic NaCl. After the initial separation of a

fraction containing γ-globulin, hemoglobin is separated from the albumin fraction by the addition of Zn and bicarbonate ions. Hematin, resulting from the breakdown of hemoglobin, is removed by filtration at pH 4.7 in the presence of Na caprylate. The residual Zn concentration is reduced by an ion-exchange resin, XE-64, and the placental albumin is concentrated and purified by the use of aqueous EtOH systems in the cold. The albumin is 95-97% pure by electrophoretic analysis and is low in salts and heme pigments. It has no demonstrable toxicity in the guinea pig or mouse.

L6 ANSWER 58 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1919:13527 CAPLUS
DOCUMENT NUMBER: 13:13527
ORIGINAL REFERENCE NO.: 13:2691a-c
TITLE: Albuminoid substances precipitated by ammonium sulfate, and biochemical reactions
AUTHOR(S): Hollande, A. Ch.
SOURCE: Compt. rend. sec. biol. (1919) 567
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Precipitation of albuminoid substance from urine or other toxic, e. g., alkaloidal solns., by means of (NH4)2SO4 (A) and subsequent solution in physiol. NaCl solution does not impair its response to the precipitin test. This makes possible purification of the albumin and its obtainment in concentrated solution before applying the test. To 25 cc. of the urine coutg., e. g., ovalbumin, add A to saturation After 10 min., stirring frequently, pour the precipitate into a plain filter, wash with aqueous saturated solution of A, follow with 5 cc. H2O, then with 20 CC. of physiol. NaCl solution (9 g. NaCl in 1000 cc. H2O), and if necessary with the filtrate until the precipitate is all dissolved. For comparison, saturate a sep. filter with a saturated solution of A, and wash the paper as before with 5 cc. H2O and 20 cc. of the NaCl solution The precipitating serum must not produce any precipitate or cloudiness with the 2nd (blank) filtrate. The albumin isolated from urine by A may in turn be used as antigen after its subcutaneous injection into rabbits. The rabbit serum will then precipitate albumin of the same nature, either fresh or after precipitation with A.

L6 ANSWER 59 OF 59 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1919:13528 CAPLUS
DOCUMENT NUMBER: 13:13528
ORIGINAL REFERENCE NO.: 13:2691a-c
TITLE: Albuminoid substances precipitated by ammonium sulfate, and biochemical reactions
AUTHOR(S): G. P.
SOURCE: Journal de Pharmacie et de Chimie (1919), 20, 92-4
CODEN: JPHCA9; ISSN: 0368-3591
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Precipitation of albuminoid substance from urine or other toxic, e. g., alkaloidal solns., by means of (NH4)2SO4 (A) and subsequent solution in physiol. NaCl solution does not impair its response to the precipitin test. This makes possible purification of the albumin and its obtainment in concentrated solution before applying the test. To 25 cc. of the urine coutg., e. g., ovalbumin, add A to saturation After 10 min., stirring frequently, pour the precipitate into a plain filter, wash with aqueous saturated solution of A, follow with 5 cc. H2O, then with 20 CC. of physiol. NaCl solution (9 g. NaCl in 1000 cc. H2O), and if necessary with the filtrate

until the precipitate is all dissolved. For comparison, saturate a sep. filter with a saturated solution of A, and wash the paper as before with 5 cc. H2O and 20 cc. of the NaCl solution The precipitating serum must not produce any precipitate or cloudiness with the 2nd (blank) filtrate. The albumin isolated from urine by A may in turn be used as antigen after its subcutaneous injection into rabbits. The rabbit serum will then precipitate albumin of the same nature, either fresh or after precipitation with A.

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(FILE 'HOME' ENTERED AT 16:15:37 ON 04 JUN 2008)

FILE 'BIOSIS, MEDLINE, EMBASE, CAPLUS' ENTERED AT 16:16:08 ON 04 JUN 2008

L1	528	ALBUMIN (3A) PURIFICATION
L2	1148795	FILTRATION OR FILTERED OR FILTER
L3	87	L1 AND L2
L4	1246743	NANOMETER OR NM OR ANGSTROM
L5	1	L3 AND L4
L6	59	DUP REM L3 (28 DUPLICATES REMOVED)

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